Bridge Construction Project (New)
For
Structures
SR-6; Tucker Rest Area to Soldier Summit

Project Manager: Daryl Friant
Project Number: NH-0006(29)204
PIN number: 4161
FiNet number: 5106601D

UDOT

Structures Division
Region: 4 Price
Prepared by:
Tyson Schultz

Review by Structures Team:
DM:

Table of Contents

Report Summary ..... Section 1

Scope of Project:
1. Purpose of Report
2. Project Information
3. Plan
4. Work items to be completed
5. Work items to be deferred
6. Design Exceptions
7. Maintenance Considerations
8. Construction Considerations
9. Risk Analysis
10. Development Process

Schedule of Project:
1. Design Phase
2. Advertisement Date
3. Beginning of Construction
4. Completion of Construction

Budget of Project:
1. Funding Source
2. Cost Estimate

Appendix ..... Section 2

REPORT SUMMARY

Scope of Project:

1. Purpose of Report

This report presents a conceptual overview of a project to perform New Construction for a new bridge and a Box Culvert from Tucker to Soldier Creek. It is intended to convey the need, scope, schedule, budget, and quality control process for the project.

2. Project Information

Region: 4P **Route No.:** US-6 **Date:** July 2007

Project Name: US-6, Tucker to Soldier Creek
R.P.: 204
Project Number: NH-0006(29)204 **PIN:** 4161 **FiNet:** 5106601D
Project Design: Bridge: UDOT Structures Division (Matt Rink);
Roadway: Region 4P Pre-Construction
Project Mgr: Daryl Friant

4. Plan:

This project is intended to provide a new bridge and Box Culvert for the new alignment of US-6 from the Tucker Rest Stop to Soldier Summit. This will eliminate the box culvert that is currently there, and will also divert the flow of the river through the new box culvert and under the new bridge. The Box Culvert will be built in Clear Creek (which will run through the culvert). Then the bridge will be built over Soldier creek, which will also be used as wildlife crossing (underneath). **Accelerated Bridge Construction methods will be evaluated for both structures**.

5. Work items to be completed:

The scope of this project is to put a new bridge (Wildlife Structure) and a new box culvert in to the two creeks for a new road. Then lay asphalt over the top of the Box Culvert, and the bridge will be sealed or a polymer overlay.

6. Work items to be deferred:

Roadway and safety items beyond what is related to the bridge replacement will not be included.

7. Design Exceptions:

No Design Exceptions are expected for Design work.

8. Maintenance Considerations:

After the bridge and culvert are completed, shed will start a routine maintenance, as recommended by structure division.

9. **Construction Considerations:**
No traffic control is expected. Construction is taking place in a non traffic zone.

10. **Risk Analysis:** (None anticipated at this time)

11. **Development Process:**

New or Major Reconstruction ___x___
Rehabilitation ______
Preservation ______

Schedule of Project:

Refer to the overall roadway construction schedule.

Budget of Project:

1. **Funding Source:** New Highway Federal funds
2. **Amount Programmed: CAA; $13,400,000.00**
3. **Structures Cost Estimate: $6,500,000.00**

Structure Items for Tucker to Soldier Summit				**July 18, 2007**
New Box Culvert: US-6				
Item	**Quantity**	**Unit**	**Unit Cost**	**Total Cost**
New Pre-stressed Concrete Bridge (78' X 107')	8346	SF	$ 300.00	$ 2,503,800.00
Box Culvert 120' Long 20" & 21" For the slabs & 13" left & right side wall Est. Total Qty = 535 cy,	535	CY	$ 800.00	$ 428,000.00
Box Culvert Inlet & Outlet Sections (Est. 30% of Total Box Culvert Qty.= 160 yd)	160	CY	$ 800.00	$ 128,000.00
Traffic Control				Included in Roadway
Mobilization				Included in Roadway
Structures Subtotal				**$ 3,059,800.00**
ABC Method + Innovative Contracting	1	LUMP	$ 500,000.00	$ 500,000.00
PE/CE 20%				$ 611,960.00
20% Contingency				$ 611,960.00
Project Total before Inflation Rate				**$ 4,783,720.00**
Inflation Rate 6% over 5 years (2007-2011)				**$1,617,976.46**
TOTAL STRUCTURE COST:				**$ 6,401,696.46**
USE:				**$ 6,410,000.00**
Assumptions: (Verify the bridge width & water way opening during the final design phase.)				
1) Bridge Width = 3 X 12' Traffic Lanes + 2 X 10' Shoulders + 2 X 7' Medians + 2 X 2' Shy Distance + 2 X 1'-7" Parapets				
2) Hydraulic Opening of Single Box Culverts is 24' x 14'				
3) Channel Cut & Embankment Fills are Included in Roadway Costs;				
4) All Roadway Safety Upgrades are Included in Roadway Costs.				

LOCATION MAP